10/726,130
Reply to Office Action of Mar. 24, 2005
Page 2

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-8 (cancelled)

Claim 9 (original) A method for use in defining a lens profile, comprising:

determining an illumination integral for an illuminance pattern of an input beam;

determining a far-field intensity prescription; establishing a one to one spatio-angular correspondence of transverse location of the input beam with direction in the intensity prescription;

deriving surface normal vectors of an output surface of the transverse locations across the input beam; and

determining the output surface according to the surface normal vectors.

Claim 10 (original) The method of claim 9, further comprising: determining a normalized cumulative illumination integral for the far-field intensity prescription.

Claim 11 (original) The method of claim 10, wherein the determining the illumination integral further comprises determining a normalized illumination integral for the transverse illuminance pattern.

Claim 12 (original) The method of claim 11, further comprising:

determining modifications for the output surface; and

10/726,130 Reply to Office Action of Mar. 24, 2005 Page 3

applying modifications to the output surface to attain the intensity prescription.

Claim 13 (original) The method of claim 9, further comprising: collimating the input beam generating a collimated input beam; and

the determining the illumination integral for the illuminance pattern of the input beam comprises determining the illumination integral for the illuminance pattern of the collimated input beam.

Claim 14 (original) The method of claim 13, wherein the determining the output surface according to the surface normal vectors comprises determining the output surface so that the intensity prescription is a rectangular pattern.

Claim 15 (original) The method of claim 9, wherein the establishing a one to one spatio-angular correspondence comprises assigning a unique far-field divergence angle to a plurality of spatially related radiuses within the input beam.

Claim 16 (original) A method for use in defining a lens profile, comprising:

determining an intensity prescription;

determining an illuminance pattern of an input beam; and

defining an optically active surface of a lens,

comprising:

integrating a cumulative flux distribution of the determined illuminance pattern;

integrating a cumulative flux distribution of the determined intensity prescription and obtaining first and second factored profile angles;

sweeping the first profile angle along a space defined by the second profile; and

10/726,130
Reply to Office Action of Mar. 24, 2005
Page 4

defining the optically active surface according to the sweep of the first profile angle.

Claim 17 (original) The method of claim 16, further comprising:

modifying the determined optically active surface at perimeters of the determined active surface.

Claim 18 (original) The method of claim 17, further comprising:

determining a subsequent intensity prescription according to the defined optically active surface;

repeating the defining of the optically active surface of the lens; and

determining a subsequent optically active surface according to the subsequent intensity prescription.

Claim 19 (original) The method of claim 16, wherein the integrating the cumulative flux distribution of the determined illuminance pattern comprises calculating a one dimensional integration for a first axis and calculating a one dimensional integration for a second axis; and

wherein the integrating the cumulative flux distribution of the determined intensity prescription comprises calculating a one dimensional integration for the first profile angle and calculating a one dimensional integration for the second profile angle.

Claim 20 (original) The method of claim 19, wherein the integration of the first axis and the integration of the second axis are made equal to a cross-section of the input beam, where the input beam is circularly symmetric.